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11-350

USCOMM-DC 90-3952

PTO-1590 (9-90)

★ U.S. GPO: 1995-398-798/22489

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=> s ("n-ethylmaleimide" or maleimide)/cn
             1 "N-ETHYLMALEIMIDE"/CN
             1 MALEIMIDE/CN
L1           2 ("N-ETHYLMALEIMIDE" OR MALEIMIDE)/CN

=> fil ca,caplus
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=> s l1 or n(w)ethylmaleimide# or maleimide# or nem(s)(ethylmaleimide# or maleimide#)
L2       16271 FILE CA
L3       16350 FILE CAPLUS

TOTAL FOR ALL FILES
L4       32621 L1 OR N(W) ETHYLMALEIMIDE# OR MALEIMIDE# OR NEM(S)(ETHYLMA
               LEIMIDE# OR MALEIMIDE#)

=> s l4(l)(multilayer? or layer?)
L5         280 FILE CA
L6         280 FILE CAPLUS

TOTAL FOR ALL FILES
L7         560 L4(L)(MULTILAYER? OR LAYER?)

=> s l7(l)(analy? or test? or strip# or element#)
L8          30 FILE CA
L9          30 FILE CAPLUS

TOTAL FOR ALL FILES
L10         60 L7(L)(ANALY? OR TEST? OR STRIP# OR ELEMENT#)

=> s l10 and (blood or sera or serum or plasma)
L11          4 FILE CA
L12          4 FILE CAPLUS

TOTAL FOR ALL FILES
L13          8 L10 AND (BLOOD OR SERA OR SERUM OR PLASMA)

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L14          4 DUP REM L13 (4 DUPLICATES REMOVED)
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Searcher : Shears 308-4994

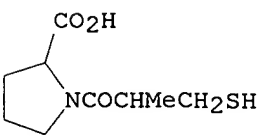
L14 ANSWER 1 OF 4 CA COPYRIGHT 1996 ACS DUPLICATE 1
AN 120:265287 CA
TI Sulfhydryl-complexing agents in clinical test elements
IN Arter, Thomas Charles; Warren, Karen Lee; Warren, Harold Chester; Snoke, Roy Eugene; Schaeffer, James Robert; Decann, Carol Anne
PA Eastman Kodak Co., USA
SO Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
PI EP 579202 A1 940119
DS R: CH, DE, FR, GB, LI, NL
AI EP 93-111290 930714
PRAI US 92-914826 920715
DT Patent
LA English
AB A dry anal. **element** for the detn. of an **analyte** in biol. fluid is disclosed wherein the spreading **layer** of the **element** contains a reagent (e.g., **maleimide**, N-Et **maleimide**, iodoacetamide, silver nitrate, gold chloride, and combinations thereof) which is capable of binding free sulfhdrdyl groups for reducing interferences present in the **analyte** sample. **Serum** samples contg. salicylate and sulfhydryl-contg. interferences were spotted on a control **element** and on the **element** of the invention contg. 0.4 g/m2 of silver nitrate added to the spreading **layer**. A comparison between the interference levels between the control **element** for salicylate and the **element** of the invention showed the sulfhydryl interference had been reduced to insignificance.

L14 ANSWER 2 OF 4 CA COPYRIGHT 1996 ACS DUPLICATE 2
AN 110:150920 CA
TI Multilayered test elements for body fluid analysis
IN Kamiyama, Mikio
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
PI JP 63048454 A2 880301 Showa
AI JP 86-191995 860819
DT Patent
LA Japanese
AB In a multilayered test element (for body fluid anal.) consisting of, in oreder, a non-liq. permeable, transparent support, a reagent layer contg. chems. that produce detectable substances when reacted with H2O2, and a porous spreading layer, a catalase inhibitor is incorporated into the reagent layer and a substance that converts H2O2 to a detectable color substance is incorporated into a layer close to the spreading layer to increase the sensitivity and reproducibility. A test element for total cholesterol detn. in **blood serum** consisted of a PET support (180 .mu.m thick), a reagent layer contg. gelatin, NaN3, 4-aminoantipyrine-HCl, 1,7-dihydroxynaphthalene, dimedone, K phosphate buffer (pH 6.7-6.9), Alkanol XC and 1,2-bis(vinylsulfonyl)ethane, and a spreading layer contg. powd. filter paper, glycidyl methacrylate-styrene copolymer, Triton X-100, peroxidase, cholesterol oxidase, cholesterol esterase, and bovine **serum** albumin.
IT **128-53-0, N-Ethylmaleimide**
RL: ANST (Analytical study)
(**multilayered test element** contg.,

for body fluid anal., hemolysis interference avoidance in relation to)

L14 ANSWER 3 OF 4 CA COPYRIGHT 1996 ACS DUPLICATE 3
AN 109:126474 CA
TI Lipid and protein contribution to red **blood** cell membrane viscoelasticity
AU Chabanel, Anne
CS Coll. Physicians Surg., Columbia Univ., New York, NY, USA
SO Clin. Hemorheol. (1988), 8(3-4), 307-18
CODEN: CLHEDF; ISSN: 0271-5198
DT Journal
LA English
AB The relation between mol. structure and human red **blood** cell (RBC) membrane viscoelasticity was investigated. To define the contribution of lipids to membrane viscoelasticity, membrane cholesterol content and lipid fluidity was modified. To det. the role of the protein skeleton on the cytoplasmic side of the membrane, RBCs with a mol. defect of the spectrin mol. (type I hereditary elliptocytosis) were used. Treatment of normal erythrocytes with **N-ethylmaleimide** (**NEM**) resulted in RBCs with the same structural defect of the spectrin mol. The membrane viscoelasticity of these NEM-treated-RBCs was compared to that of elliptocytes. To assess the role of the Hb **layer** assocd. with the membrane the viscoelasticity of young and old RBCs was studied. The membrane viscoelasticity was detd. by the micropipette **test**. Membrane lipid fluidity was estd. by fluorescence depolarization. Lipid compn. and fluidity were not determinants of RBC membrane viscoelasticity. However, the viscoelastic properties of the RBC membrane are affected by a specific change in the state of membrane spectrin. The membrane mech. behavior of old RBCs suggested that the Hb assocd. with the membrane might influence the viscous response to membrane deformation. Apparently, the integrity and stability of the protein network are essential to the mech. function, whereas modification of the lipid core does not affect membrane viscoelasticity. These findings are important when therapies are designed to improve RBC rheol. in pathol. conditions: the membrane skeleton should be the main target.

L14 ANSWER 4 OF 4 CA COPYRIGHT 1996 ACS DUPLICATE 4
AN 93:160830 CA
TI Thin-layer radiochromatographic determination of captopril (SQ 14,225) and its disulfide dimer metabolite in **blood**
AU Migdalof, B. H.; Singhvi, S. M.; Kripalani, K. J.
CS Dep. Drug Metab., Squibb Inst. Med. Res., New Brunswick, NJ, 08903, USA
SO J. Liq. Chromatogr. (1980), 3(6), 857-65
CODEN: JLCHD8; ISSN: 0148-3919
DT Journal
LA English
GI



I

AB A reliable thin-**layer** radiochromatog. assay was developed for quant. of radiolabeled SQ 14225 (captopril)(I) [62571-86-2], a new sulfhydryl-contg. orally active antihypertensive agent, and its disulfide dimer metabolite (II) [64806-05-9] in **blood**. I, which is chem. unstable in **blood**, was immediately converted to a stable deriv. by addn. of **N-ethylmaleimide** (**NEM**) to freshly collected samples. Aliquots of whole **blood** samples were **analyzed** for total radioactivity, and NEM-treated aliquots were extd. with MeOH. Reconstituted residues of the exts. were applied to silica gel GF plates, developed with CH3Cl-EtOAc-AcOH (4:5:3), and **analyzed** for radioactivity assocd. with I and II by zonal anal.

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FILE 'TOXLINE' ENTERED AT 14:28:39 ON 22 NOV 96

=> s l13
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L16             0 FILE MEDLINE
L17             5 FILE EMBASE
L18             0 FILE PROMT
'CN' IS NOT A VALID FIELD CODE
L19             0 FILE CONFSCI
'CN' IS NOT A VALID FIELD CODE
L20             0 FILE DISSABS
'CN' IS NOT A VALID FIELD CODE
L21             2 FILE SCISEARCH
L22             1 FILE TOXLIT
L23             0 FILE TOXLINE

TOTAL FOR ALL FILES
L24            10 L13

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=> d l25 1-7 bib abs; fil wpids; s l13

L25 ANSWER 1 OF 7 EMBASE COPYRIGHT 1996 ELSEVIER SCI. B.V.DUPLICATE 1
AN 95294361 EMBASE
TI NO2 reactive absorption substrates in rat pulmonary surface lining fluids.
AU Postlethwait E.M.; Langford S.D.; Jacobson L.M.; Bidani A.
CS Pulmonary Division, Department of Internal Medicine, University of Texas Medical Branch, 301 University Blvd., Galveston, TX 77555-0876, United States
SO Free Radical Biology and Medicine, (1995) 19/5 (553-563).
ISSN: 0891-5849 CODEN: FRBMEH
CY United States
DT Journal
FS 005 General Pathology and Pathological Anatomy
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB Inhaled .cntdot.NO2 is absorbed by a free radical-dependent reaction mechanism that localizes the initial oxidative events to the extracellular space of the pulmonary surface lining **layer** (SLL). Because .cntdot.NO2 per se is eliminated upon absorption, most likely the SLL-derived reaction products are critical to the genesis of .cntdot.NO2-induced lung injury. We utilized **analysis** of the rate of .cntdot.NO2 disappearance from the gas phase to determine the preferential absorption substrates within rat SLL. SLL was obtained via bronchoalveolar lavage and was used either as the cell-free composite or after constituent manipulation [(i) dialysis, treatment with (ii) **N-ethylmaleimide**, (iii) ascorbate oxidase, (iv) uricase, or (v) combined ii + iii]. Specific SLL constituents were studied in pure chemical systems. Exposures were conducted under conditions where .cntdot.NO2 is the limiting reagent and disappears with first-order kinetics ([NO2]0 .ltoreq. 10 ppm). Reduced glutathione and ascorbate were the principle rat SLL absorption substrates. Nonsulfhydryl amino acids and dipalmitoyl phosphatidylcholine exhibited negligible absorption activity. Whereas uric acid and vitamins A and E displayed rapid absorption kinetics, their low SLL concentrations preclude appreciable direct interaction. Unsaturated fatty acids may account for .ltoreq. 20% of absorption. The results suggest that water soluble, low molecular weight antioxidants are the preferential substrates driving .cntdot.NO2 absorption. Consequently, their free radicals, produced as a consequence of .cntdot.NO2 exposure, may participate in initiating the .cntdot.NO2-reduced cascade, which results in epithelial injury.

L25 ANSWER 2 OF 7 SCISEARCH COPYRIGHT 1996 ISI (R)
Searcher : Shears 308-4994

AN 95:792081 SCISEARCH
GA The Genuine Article (R) Number: TE213
TI GLYCOSIDIC SPECIFICITY OF FUCOSYL-TRANSFERASES PRESENT IN RAT EPIDIDYMAL SPERMATOZOA
AU RAYCHOUDHURY S S; MILLETTE C F (Reprint)
CS UNIV S CAROLINA, SCH MED, DEPT CELL BIOL & NEUROSCI, COLUMBIA, SC, 29208 (Reprint); UNIV S CAROLINA, SCH MED, DEPT CELL BIOL & NEUROSCI, COLUMBIA, SC, 29208
CYA USA
SO JOURNAL OF ANDROLOGY, (SEP/OCT 1995) Vol. 16, No. 5, pp. 448-456. ISSN: 0196-3635.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 50
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB We have recently demonstrated multiple fucosyltransferase (FT) activity in rat spermatogenic cells. To complement these findings, here we identify and partially characterize the glycosidic linkage specificity of FTs present in spermatozoa from caput and cauda epididymides. **Analysis** of the acceptor substrate specificity of the FTs by thin-**layer** chromatography indicated that both caput and cauda sperm expressed alpha(1-2)-, alpha(1-3)-, alpha(1-4)-FTs as demonstrated by fucose incorporation into phenyl-beta-D-galactoside, 2'-fucosyllactose, and lacto-N-fucopentaose-1, respectively. Spermatozoa from the cauda epididymidis exhibited significant decreases in the levels of alpha(1-2)-, alpha(1-3)-, alpha(1-4)-FTs, and of total soluble FTs in comparison to spermatozoa from the caput epididymidis. The relative ratio of alpha(1-3)-FT to total FT activity appeared to be significantly higher than those of alpha(1-2)- or alpha(1-4)-FTs, in spermatozoa both from caput and cauda epididymides. Using different types of low molecular weight accepters and the selective inhibition of the FT by **N-ethylmaleimide**, we have demonstrated that at least alpha(1-2)-FT is different from alpha(1-3)- or alpha(1-4)-FTs. Kinetic studies also showed that alpha(1-2)-FT is different from alpha(1-3)- or alpha(1-4)-FTs as demonstrated by apparent K-m and V-max values. Moreover, alpha(1-3)- and alpha(1-4)-FT activities in cauda sperm were found to be highly sensitive to Mn2+ but showed differential responses to divalent cations. In contrast, both alpha(1-3)and alpha(1-4)-FTs seemed to be relatively less sensitive to Mg2+. Thus, these results not only demonstrate the presence of multiple FTs in rat epididymal sperm but also differentiate individual FTs with regard to their kinetic properties and sensitivity to both inhibitor and divalent cations.

L25 ANSWER 3 OF 7 EMBASE COPYRIGHT 1996 ELSEVIER SCI. B.V.
AN 94301233 EMBASE
TI Derivatization of thiol-containing compounds.
AU Shimada K.; Mitamura K.
CS Faculty of Pharmaceutical Sciences, Kanazawa University, 13-1 Takara-machi, Kanazawa 920, Japan
SO J. CHROMATOGR. B BIOMED. APPL., (1994) 659/1-2 (227-241). ISSN: 0378-4347 CODEN: JCBBEP
CY Netherlands
DT Journal
FS 029 Clinical Biochemistry
037 Drug Literature Index
LA English
SL English

AB The determination of thiol-containing compounds in biological fluids is important in biochemistry and clinical chemistry. In this paper, derivatization reagents for thiols are reviewed with respect to their reactivity, selectivity, spectroscopic characteristics and their applicability especially to high-performance liquid chromatography. Derivatization used in ultraviolet and electrochemical detection. The derivatization reagents contain a functional group, e.g. an N-substituted **maleimide**, active halogen or aziridine, which react with the thiol group. Derivatization for use in flow injection **analysis**, thin-**layer** chromatography or gas chromatography-mass spectrometry is also described.

L25 ANSWER 4 OF 7 EMBASE COPYRIGHT 1996 ELSEVIER SCI. B.V.
AN 88186157 EMBASE
TI Lipid and protein contribution to red **blood** cell membrane viscoelasticity.
AU Chabanel A.
CS Department of Physiology, College of Physicians and Surgeons, Columbia University, New York, NY, United States
SO CLIN. HEMORHEOL., (1988) 8/3-4 (307-318).
ISSN: 0271-5198 CODEN: CLHEDF
CY United States
DT Journal
FS 002 Physiology
022 Human Genetics
025 Hematology
029 Clinical Biochemistry
LA English
AB The relationship between molecular structure and red **blood** cell (RBC) membrane viscoelasticity was investigated. To define the contribution of lipids to membrane viscoelasticity, we modified membrane cholesterol content and lipid fluidity. To determine the role of the protein skeleton on the cytoplasmic side of the membrane we used RBCs with a molecular defect of the spectrin molecule (type I hereditary elliptocytosis). Treatment of normal erythrocytes with N-ethyl-**maleimide** (**NEM**) resulted in RBCs with the same structural defect of the spectrin molecule. We compared the membrane viscoelasticity of these **NEM**-treated-RBCs to that of elliptocytes. To assess the role of the hemoglobin **layer** associated with the membrane we studied the viscoelasticity of young and old RBCs. The membrane viscoelasticity was determined by the micropipette **test**. Membrane lipid fluidity was estimated by fluorescence depolarization. Results indicated that lipid composition and fluidity were not determinants of RBC membrane viscoelasticity. However our results showed that the viscoelastic properties of the RBC membrane are affected by a specific change in the state of membrane spectrin. The membrane mechanical behavior of old RBCs suggested that the hemoglobin associated with the membrane might influence the viscous response to membrane deformation. This work demonstrates that integrity and stability of the protein network are essential to the mechanical function, while modification of the lipid core does not affect membrane viscoelasticity. These findings are important when therapies are designed to improve RBC theology in pathological conditions: the membrane skeleton should be the main target.

L25 ANSWER 5 OF 7 EMBASE COPYRIGHT 1996 ELSEVIER SCI. B.V.
AN 85147915 EMBASE
TI Specific phosphorylation of pig liver initiation factor eIF-2 by the

N-ethylmaleimide-treated hemin-controlled translational inhibitor.
AU Suzuki H.; Kishio N.; Morozumi K.; et al.
CS Department of Biophysical Chemistry, Kitasato University School of Medicine, Sagamihara, Kanagawa 228, Japan
SO J. BIOCHEM. (TOKYO), (1985) 97/4 (1061-1066).
CODEN: JOBIAO
CY Japan
LA English
AB The specific phosphorylation of pig liver initiation factor 2(eIF-2) by the **N-ethylmaleimide** (**NEM**)-treated hemin-controlled translational inhibitor (HCI) from rabbit reticulocytes was investigated. The inhibitor phosphorylated the serine residue of the .alpha. subunit of eIF-2 (eIF-2.alpha.) and 1 mol of phosphate was incorporated into 1 mol of eIF-2.alpha. by the inhibitor on maximal phosphorylation, even when eIF-2 was pretreated with alkaline phosphatase prior to phosphorylation. The 32P-labeled eIF-2.alpha. was subjected to tryptic digestion and the tryptic digest was **analyzed** by two-dimensional peptide mapping on a cellulose thin-**layer** sheet. After 94 h digestion, the autoradiograph of the peptide map showed a single 32P-labeled band with a molecular weight of .apprx.1,200. These findings suggest that one specific serine residue of pig liver eIF-2.alpha. was phosphorylated by the **NEM**-treated HCI.

L25 ANSWER 6 OF 7 BIOSIS COPYRIGHT 1996 BIOSIS DUPLICATE 2
AN 81:135017 BIOSIS
DN BA71:5009
TI THIN LAYER RADIO CHROMATOGRAPHIC DETERMINATION OF CAPTOPRIL SQ-14225 AND ITS DI SULFIDE DIMER METABOLITE IN **BLOOD**.
AU MIGDALOF B H; SINGHVI S M; KRIPALANI K J
CS DEP. DRUG METAB., SQUIBB INST. MED. RES., NEW BRUNSWICK, N.J. 08903, USA.
SO J LIQ CHROMATOGR 3 (6). 1980. 857-866. CODEN: JLCHD8 ISSN: 0148-3919
LA English
AB A reliable thin-**layer** radiochromatographic (TLRC) assay was developed for quantitation of radiolabeled captopril (CP), a new sulfhydryl-containing orally active antihypertensive agent, and its disulfide dimer metabolite (CPD) in [human] **blood**. CP, which is chemically unstable in **blood**, was immediately converted to a stable derivative by addition of **N-ethylmaleimide** (**NEM**) to freshly collected samples. Aliquots of whole **blood** samples were **analyzed** for total radioactivity, and **NEM**-treated aliquots were extracted with methanol. Reconstituted residues of the extracts were applied to silica gel GF plates, developed with chloroform/ethyl acetate/glacial acetic acid (4:5:3), and **analyzed** for radioactivity associated with CP and CPD by zonal **analysis**.

L25 ANSWER 7 OF 7 BIOSIS COPYRIGHT 1996 BIOSIS DUPLICATE 3
AN 79:229392 BIOSIS
DN BA68:31896
TI SPIN LABEL STUDIES OF LIPID PROTEIN INTERACTIONS IN RETINAL ROD OUTER SEGMENT MEMBRANES FLUIDITY OF THE BOUNDARY LAYER.
AU FAVRE E; BAROIN A; BIENVENUE A; DEVAUX P F
CS INST. BIOL. PHYS.-CHIM., EQUIPE RECH. ASSOC. 690 CNRS, 75005 PARIS, FR.
SO BIOCHEMISTRY 18 (7). 1979. 1156-1162. CODEN: BICHAW ISSN: 0006-2960
LA English
AB To fix spin-labeled acids at the boundary **layer** of membrane-bound proteins, spin-labeled long-chain derivatives

[(m,n)MSL] (general formula, CH3(CH2)mR(CH2)nCOO(CH2)2-M, where R is an oxazolidine ring containing a nitroxide and M is a **maleimide** residue) were synthesized. The spin-labeled molecules bind covalently to at least 2 different classes of sulfhydryl groups on rhodopsin in disc membrane fragments from bovine retina. One class of sites is hydrophilic and corresponds to the 2 SH groups labeled readily by **N-ethylmaleimide**; the second class of sites is only reached by hydrophobic probes. (10,3)MSL binds equally well to the 2 classes of sites on rhodopsin, whereas (1,14)MSL, more hydrophobic, binds preferentially to the hydrophobic sites. Apparently, a third class of SH groups can be labeled if a very large excess of (m,n)MSL is employed, but proteins may be denatured in this latter case. Labels not covalently bound are removed from the membranes by incubation with fatty acid free bovine **serum** albumin. However, the probes do not bind only to rhodopsin in disc membranes. (m,n)MSL also binds covalently to phosphatidylethanolamine in the rod outer segments or in liposomes. This covalent binding to phospholipids is demonstrated by lipid extraction and thin-**layer** chromatographic **analysis**. To obtain the pure EPR spectra of the spin-labeled fatty acids bound to the protein, the spectra corresponding to phospholipid-bound spin labels was subtracted. (1,14)MSL corresponds to the spin label with the nitroxide near the .omega.-2 carbon of the acyl chain. When this spin label is bound to rhodopsin in the disc membranes, it gives rive to an EPR spectrum not very different from the spectrum of the corresponding fatty acid diffusing freely in the lipid phase. In native membranes, a high degree of fluidity exists in the boundary **layer** of phospholipids and therefore indicates that the lipid phase of the rod outer segment membranes is largely homogeneous. If membranes are illuminated at 37.degree. C for an hour, an immobilized component appears, superimposed on the former spectrum of (1,14)MSL. Similarly if membranes are partially delipidated with phospholipase A2, a strongly immoblized component is always seen. The (10,3)MSL, which has a probe closer to the **maleimide** residue, is more immobilized than the corresponding free fatty acid. However, saturation transfer spectroscopy demonstrates that, in this latter case, the motion of the probe still does not reflect the rotation of the protein; thus, it is not rigidly fixed to the protein. Only when membranes are highly delipidated is it possible to liken the protein motion to the remaining hydrocarbon chain motion. However, in this latter case the apparent correlation time describing the motion is increased by more than 2 orders of magnitude, showing that lipid-depleted membranes cannot be used to characterize the viscosity of the boundary **layer** of native membranes.

```
'CN' IS NOT A VALID FIELD CODE
             0 "N-ETHYLMALEIMIDE"/CN
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        444890 N
            93 ETHYLMALEIMIDE#
          5038 MALEIMIDE#
            59 NEM
            93 ETHYLMALEIMIDE#
          5038 MALEIMIDE#
         34311 MULTILAYER?
        678926 LAYER?
        108368 ANALY?
        228083 TEST?
        211819 STRIP#
        681665 ELEMENT#
            29 L7(L)(ANALY? OR TEST? OR STRIP# OR ELEMENT#)
         57429 BLOOD
           697 SERA
         14499 SERUM
         51685 PLASMA
L26          2 L10 AND (BLOOD OR SERA OR SERUM OR PLASMA)

=> d 1-2 bib abs; fil uspat

L26  ANSWER 1 OF 2  WPIDS   COPYRIGHT 1996 DERWENT INFORMATION LTD
AN   94-027714 [04]   WPIDS
DNC  C94-012747
TI   Analytical element for determn. of acetaminophen - contains
     aryl-acyl-amidase, oxidising enzyme and arylamino coupling agent,
     partic. tetra hydro-quinoline cpd..
DC   B04 B05 D16
IN   ARTER, T C; MAUCK, J C; SCHAEFFER, J R; WINTERKORN, R F
PA   (EAST) EASTMAN KODAK CO; (CLIN-N) CLINICAL DIAGNOSTIC SYSTEMS INC;
     (JOHJ) JOHNSON & JOHNSON CLINICAL DIAGNOSTICS INC
CYC  8
PI   EP 580070   A2 940126 (9404)* EN   14 pp
         R: CH DE FR GB LI NL
     CA 2099639  A  940116 (9414)
     JP 06189791 A  940712 (9432)       11 pp
     EP 580070   A3 951025 (9617)
ADT  EP 580070 A2 EP 93-111289 930714; CA 2099639 A CA 93-2099639 930624;
     JP 06189791 A JP 93-175227 930715; EP 580070 A3 EP 93-111289 930714
PRAI US 92-914915   920715
AN   94-027714 [04]   WPIDS
AB   EP  580070 A   UPAB: 951109
     A novel analytical element for the determn. of
     acetaminiphen in an aq. fluid comprises a support having at least
     one reagent layer contg. (a) an arylacylamidase enzyme
     (I), (b) an oxidising enzyme (II) capable of oxidatively coupling
     para-0aminophenol to a coupling agent to form a colour cpd., and (c)
     a water-soluble, colour-forming, coupling agent of formula (III). R
     = (CH2)n-X; n = 1-5; X = SO3H, -N+R3, (OCH2CH2)4OH or a gp. of
     formula (i); y = 2-5; R1, R2, R3, R4 = H, alkyl, alkoxy, aryl,
     aryloxy, a heterocyclic gp. or halo; R6 = H or opt. substd. 1-6C
     alkyl or R6 taken together with R1 represent the atoms necessary to
     complete a satd. 5-7 membered heterocylic ring.
          The element can consist of 2 layers, where
     the first layer is the reagent layer comprising
     (a), (b), (c) or 1-(3-sulphopropyl) -1,2,3,4-tetrahydroquinoline,
     and the second layer is a porous spreading layer
```

contg. **maleimide** or the second reagent **layer**
contg. ascorbic acid oxidase and (a). The oxidising enzyme can be also laccase and tyrosinase. The **element** further contains a buffer for maintaining the pH in the range 6.5-8.5.

USE/ADVANTAGE - (II) and the enzyme-catalysed oxidative coupling produce an acceptable amt. of coloured prod. in a short time (within 5 mins.). (III) provides a detectable changer and precise determn. of acetaminophen in a dry format. The **element** is used for determining the concn. of the analgesic acetaminophen in fluids, partic. **serum**.

Dwg. 0/3

Dwg. 0/3

L26 ANSWER 2 OF 2 WPIDS COPYRIGHT 1996 DERWENT INFORMATION LTD
AN 85-111875 [19] WPIDS
DNN N85-084040 DNC C85-048340
TI Alkali-insoluble UV photosensitive positive resist compsn. - contg. maleimide-styrene copolymer etc and photoactive cpd. which becomes soluble in alkali upon exposure.
DC A13 A89 G06 L03 P83 P84 U11
IN HOPF, F R; MCFARLAND, M J; OSUCH, C E
PA (ALLC) ALLIED CORP; (FARH) HOECHST CELANESE CORP
CYC 8
PI EP 140273 A 850508 (8519)* EN 51 pp
R: DE FR GB IT
JP 60115932 A 850622 (8531)
KR 8700752 B 870413 (8745)
US 4857435 A 890815 (8941)
CA 1279218 C 910122 (9110)
EP 140273 B 910911 (9137)
R: DE FR GB IT
DE 3485048 G 911017 (9143)
US 5059513 A 911022 (9145)
ADT EP 140273 A EP 84-112439 841016; JP 60115932 A JP 84-231115 841101; US 4857435 A US 87-24879 870317; US 5059513 A US 89-366088 890614
PRAI US 83-547815 831101; US 86-814591 860102; US 87-24875 870317
AN 85-111875 [19] WPIDS
AB EP 140273 A UPAB: 930925
Compsn. comprises a mixt. of (a) an alkali-soluble photoactive cpd. (I) capable of being converted into an alkali-soluble species upon exposure to actinic radiation, in an amt. sufficient to render the mixt. relatively alkali-insoluble prior to exposure; and (b) a polymer comprising an amt. of (-CO-NH-CO-)- gps. sufficient to render the mixt. alkali-soluble upon exposure to actinic radiation.

Pref. the polymer comprises a copolymer contg. an effective amt. of residues of formula (II) and is made by copolymerisation of a film-forming monomer chosen from styrene, alpha-methyl styrene, 2- or 4-(1.5 C alkyl)styrene, 2,4-di-(1-5C alkyl) styrene or a monomer H2C=C(Ra)M where M=Cn or COORb in which Rb=methyl or allyl, and Ra=H or CH3, and maleimide. A pref. copolymer is made by copolymerising monomers (III), (IV) and opt. (V) in which R1-R4 are each H or 1-5C alkyl and R5=1-5C alkyl. A pref. polymer comprises ca. 40 mole.% maleimide, ca. 10 mole.% N-(1-5C alkyl) maleimide and the balance of styrene cpd.

ADVANTAGE - The photoresist layer is exposed through a mask at 200-700 nm to produce a photochemically imaged system which can be treated with an alkaline developer to form a highly resolved pattern by highly selective normal of exposure areas. Pref. the imaged system is postbaked at ca. 230 deg.C. The high thermal stability of the system allows faster processing at higher temps. on equipment

such as **plasma** etchers and ion implanters. The developed systems retain high resolution with sharp steeply patterned image profiles.
0/2

ABEQ EP 140273 B UPAB: 930925
An alkali-insoluble positive photoresist composition comprising a mixture of (a) an alkali-insoluble photoactive compound, capable of being transformed into an alkali-soluble species upon exposure to actinic radiation, in an amount sufficient to render the mixture relatively alkali-insoluble before exposure to actinic radiation; and (b) a polymer comprising an amount of (CO-NH-CO) groups sufficient to render the mixture alkali-soluble upon exposure to actinic radiation.

ABEQ US 4857435 A UPAB: 930925
(I) Positive photoresist compsn. comprises a mixt. of (a) 65-99 wt.% (75-92 wt.%) of a copolymer prepd. from 10 mol.% based on the mole amt. of co-monomers in the copolymer to render the copolymer soluble in an aq. alkali developer , wherein R1,R2 = H or 1-5C alkyl (pref. the styrene and **maleimide** are in the molar ratio of 1:1); and (b) 1-35 wt.% (8-25 wt.%) of a photoactive cpd. which, upon exposure to actinic radiation, is transformed into cpds. contg. acidic gps. (pref. carboxylic acid moieties) that are more soluble in aq. alkaline developers than the photoactive cpd. before exposure. (II) Alkaline-insol. positive photoresist compsn. comprises a mixt. of (A) 1-35 wt.% of a photoactive cpd. transformed into cpds. contg. acidic gps. that are more soluble in aq. alkaline developers than the photoactive cpd. before exposure; and (B) 65-99 wt.% of a polymer comprising a copolymer formed from polymerisation of a film-forming monomer selected from styrene, alpha-methylstyrene, 4-(1-5C alkyl)styrene, 2-(1-5C alkyl)styrene, 2,4-di(1-5C alkyl)styrene or a monomer of formula H2C=CRaM and at least 10 mol.% **maleimide** based on the mole amt. of co-monomers in the copolymer to render the copolymer soluble in an aq. alkaline developer soln., wherein M = CN or CO2Rb, Rb = methyl or allyl, Ra = H or methyl. Positive photoresist compsn. suitable for application onto a substrate comprises (II) above and pref. organic solvent. Photosensitive **element** comprises a substrate bearing a **layer** of a photoresist compsn. as (I).
ADVANTAGE - High thermal stability shown by the photochemically imaged system formed from these positive photoresist compsns. allows faster processing at higher temps. than used with prior art resist polymers, appts. e.g. **plasma** etchers and ion implanters. The developed images retain high resolution.
0/2

ABEQ US 5059513 A UPAB: 930925
Prepn. of a photochemical image comprises (a) depositing on the face of a substrate a soln. of a positive photoresist compsn. comprising a mixt. of 65-99 wt.% of copolymer prepd. from a styrene deriv. of formula (I) and a **maleimide** cpd. of formula (II) and 1-35 wt.% of a photoactive cpd., which upon exposure to actinic radiation, is transformed into cpds. contg. acidic gps. more soluble in aq. alkaline developers than the photoactive cpd. before exposure, and an organic solvent to produce a uniform deposit having a thickness of 0.1-20 microns of the compsn. on the substrate face, (b) treating the deposit under temp. and pressure to remove the solvent and form a film, (c) imagewise exposing through a mask the film to actinic radiation of 200-700nm to make the exposed areas of film soluble in alkaline soln. and (d) contacting the exposed film with developer soln. comprising alkaline material having a pH above 10 for a time to remove the exposed areas of film.

The photoactive cpd. is pref. naphthoquinone diazide sulphonic acid ester.

ADVANTAGE - Image has high thermal stability.

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FILE 'USPATFULL' ENTERED AT 14:37:24 ON 22 NOV 96
CA INDEXING COPYRIGHT (C) 1996 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 19 Nov 1996 (19961119/PD)
FILE LAST UPDATED: 20 Nov 1996 (961120/ED)
HIGHEST PATENT NUMBER: US5577270
CA INDEXING IS CURRENT THROUGH 20 Nov 1996 (961120/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 19 Nov 1996 (19961119/PD)
REVISED CLASS FIELDS (/NCL) CURRENT THROUGH: AUG 1996
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: AUG 1996

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>>> (IPC) Manuals, editions 1-6, in the /IC1, /IC2, /IC3, /IC4,     <<<
>>> /IC5, and /IC (/IC6) fields, respectively.  The thesauri in     <<<
>>> the /IC5 and /IC fields include the corresponding catchword     <<<
>>> terms from the IPC subject headings and subheadings.            <<<

=> s l7(l)(analy? or test? or strip# or element#)
           232 L1
        589909 N
           613 ETHYLMALEIMIDE#
          5555 MALEIMIDE#
           335 NEM
           613 ETHYLMALEIMIDE#
          5555 MALEIMIDE#
         28266 MULTILAYER?
        506268 LAYER?
        318817 ANALY?
        477676 TEST?
        252033 STRIP#
        862233 ELEMENT#
L27       1763 L7(L)(ANALY? OR TEST? OR STRIP# OR ELEMENT#)

=> s l27(l)((blood or plasma)(w)(sera or serum))
         79716 BLOOD
         61567 PLASMA
          5064 SERA
         34070 SERUM
L28         56 L27(L)((BLOOD OR PLASMA)(W)(SERA OR SERUM))

=> s l4(l)((multilayer? or layer?)(s)(analy? or test? or strip# or element#))
           232 L1
        589909 N
           613 ETHYLMALEIMIDE#
          5555 MALEIMIDE#
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          335 NEM
          613 ETHYLMALEIMIDE#
         5555 MALEIMIDE#
        28266 MULTILAYER?
       506268 LAYER?
       318817 ANALY?
       477676 TEST?
       252033 STRIP#
       862233 ELEMENT#
L29       725 L4(L)((MULTILAYER? OR LAYER?)(S)(ANALY? OR TEST? OR STRIP#
              OR ELEMENT#))

=> s l29(l)((blood or plasma)(w)(sera or serum))
        79716 BLOOD
        61567 PLASMA
         5064 SERA
        34070 SERUM
L30        29 L29(L)((BLOOD OR PLASMA)(W)(SERA OR SERUM))

=> d 1-29 bib abs; fil hom

L30  ANSWER 1 OF 29  USPATFULL
AN     96:101452  USPATFULL
TI     Assay for proline iminopeptidase and other hydrolytic activities
IN     Lawrence, Paul J., Campbell, CA, United States
       Andreasen, Terrence J., San Jose, CA, United States
       Shockey, David R., Cupertino, CA, United States
PA     Litmus Concepts, Inc., Santa Clara, CA, United States (U.S.
       corporation)
PI     US 5571684  961105
AI     US 95-374487  950117 (8)
DCD    20120325
RLI    Continuation-in-part of Ser. No. US 94-335007, filed on 7 Nov
       1994, now abandoned
DT     Utility
EXNAM  Primary Examiner: Paden, Carolyn
LREP   Townsend and Townsend and Crew
CLMN   Number of Claims: 48
ECL    Exemplary Claim: 1
DRWN   8 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 3012
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     The presence of an enzymatically active hydrolase in a fluid
       sample is detected by contacting the sample with a solid-phase
       conjugate which is susceptible to cleavage by the hydrolase, and
       simultaneously or shortly thereafter, contacting the sample with
       an indicator which undergoes a detectable change upon the action
       of a reporter group. The reporter group is part of the conjugate
       and is liberated from it either partly or entirely by the action
       of the hydrolase. The indicator is susceptible to action by the
       reporter group only upon decoupling of the reporter group from the
       remainder of the conjugate, the decoupling occurring either in
       part or entirely upon action of the hydrolase. Also provided by
       this invention are various forms of a dry, self-contained test
       device which contains the conjugate described above plus the
       indicator and all other reagents and components necessary to
       achieve a detectable indication of the presence or absence of a
       catalytically active hydrolase. Preferred embodiments of the
       device also contain positive and negative controls.
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 2 OF 29 USPATFULL
AN 96:16873 USPATFULL
TI Monomeric phthalocyanine reagents
IN Schindele, Deborah C., Seattle, WA, United States
Pepich, Barry V., Seattle, WA, United States
Renzoni, George E., Seattle, WA, United States
Fearon, Karen L., Woodinville, WA, United States
Andersen, Niels H., Seattle, WA, United States
Stanton, Thomas H., Seattle, WA, United States
PA British Technology Group USA Inc., Gulph Mills, PA, United States (U.S. corporation)
PI US 5494793 960227
AI US 89-366971 890614 (7)
RLI Continuation-in-part of Ser. No. US 88-241608, filed on 8 Sep 1988 And a continuation-in-part of Ser. No. US 89-309453, filed on 10 Feb 1989 which is a continuation-in-part of Ser. No. US 87-61937, filed on 12 Jun 1987, now abandoned which is a continuation-in-part of Ser. No. US 86-941619, filed on 15 Dec 1986, now abandoned And a continuation-in-part of Ser. No. US 86-946475, filed on 24 Dec 1986, now patented, Pat. No. US 4803170
DT Utility
EXNAM Primary Examiner: Zitomer, Stephanie W.
LREP Christensen, O'Connor, Johnson & Kindness
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 10 Drawing Figure(s); 10 Drawing Page(s)
LN.CNT 1927
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Fluorescent and/or chromogenic reagents in which a phthalocyanine derivative is monomerically conjugated with an antigen, antibody, oligonucleotide, or nucleic acid. Methods are presented in in which greater than 90% of the phthalocyanine dyes are monomeric when conjugated. This greatly enhances their performance as detectable markers in immunoassays, nucleic acid probe assays, immunoblotting, hybridization assays, microscopy, imaging, flow cytometry, DNA sequencing, and photodynamic therapy. For use as fluorophores, the free base phthalocyanine may or may not be metallated. Metals for fluorescent phthalocyanine include aluminum, silicon, phosphorus, gallium, germanium, cadmium, scandium, magnesium, tin, and zinc. For use as chromogens, the phthalocyanine may or may not be metallated. For use in aqueous solution, the phthalocyanine macrocycle should be derivatized with water-solubilizing substituents such as sulfonic acid, phosphate, phosphonate, hydroxy, phenoxy, amino, ammonium, or pyridinium groups. To promote disaggregation, metallation with an atom of +3 valence or higher is recommended, so that the monomer will take on an axial ligand in aqueous solution. For use in enzymatic immunoassays and enzymatically enhanced nucleic acid probe assays, the monomeric phthalocyanine derivative is conjugated via an enzyme-cleavable linkage with the antigen, antibody, oligonucleotide, or nucleic acid. Reversibly quenched embodiments are also provided in which a cleavable linkage joins a fluorescent phthalocyanine monomer with another phthalocyanine, a heavy metal, or a paramagnetic species.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 3 OF 29 USPATFULL

AN 96:9348 USPATFULL
TI Nucleic acid detection by the 5'-3'exonuclease activity of polymerases acting on adjacently hybridized oligonucleotides
IN Gelfand, David H., Oakland, CA, United States
Holland, Pamela M., Seattle, WA, United States
Saiki, Randall K., Richmond, CA, United States
Watson, Robert M., Berkeley, CA, United States
PA Hoffmann-La Roche Inc., Nutley, NJ, United States (U.S. corporation)
PI US 5487972 960130
AI US 93-961884 930105 (7)
DCD 20100511
RLI Continuation-in-part of Ser. No. US 90-563758, filed on 6 Aug 1990, now patented, Pat. No. US 5210015
DT Utility
EXNAM Primary Examiner: Parr, Margaret; Assistant Examiner: Marschel, Ardin H.
LREP Gould, George M.; Tramaloni, Dennis P.; Sias, Stacey R.
CLMN Number of Claims: 32
ECL Exemplary Claim: 1
DRWN 21 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 2143
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process of detecting a target nucleic acid using labeled oligonucleotides which uses the 5' to 3' nuclease activity of a nucleic acid polymerase to cleave annealed labeled oligonucleotide from hybridized duplexes and thus releasing labeled oligonucleotide fragments for detection. This process is easily incorporated into a PCR amplification assay.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 4 OF 29 USPATFULL
AN 95:80218 USPATFULL
TI Homogeneous Immunoassay process using covalent conjugate of enzyme and plural monoclonal antibodies for different epitopes on analyte
IN Shinoki, Hiroshi, Asaka, Japan
Ogawa, Masashi, Asaka, Japan
PA Fuji Photo Film C., Ltd., Kanagawa, Japan (non-U.S. corporation)
PI US 5447846 950905
AI US 93-91661 930714 (8)
PRAI JP 92-212394 920717
DT Utility
EXNAM Primary Examiner: Spiegel, Carol A.
LREP McAulay Fisher Nissen Goldberg & Kiel
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN 5 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1251
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An enzyme-labelled antibody adapted for use in a homogeneous immunoassay is provided. The enzyme-labelled antibody is a conjugate of an enzyme with two or more different monoclonal antibodies, each of the monoclonal antibodies being capable of specifically recognizing and binding to a different epitope of the same antigen. By using the enzyme-labelled antibody in the homogeneous enzyme immunoassay process, an analyte can be quantitatively analyzed at a higher sensitivity through a simple operation. Also provided is a dry immunoassay element comprising an immunological reaction layer containing the enzyme-labelled

antibody. By the provision of such an immunoassay element, a further simplified quick analysis of an analyte is realized to give an accurate result.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 5 OF 29 USPATFULL
AN 94:93231 USPATFULL
TI Use of calcium in immunoassay for measurement of C-reactive protein
IN Wu, Annie L., Penfield, NY, United States
PA Eastman Kodak Company, Rochester, NY, United States (U.S. corporation)
PI US 5358852 941025
AI US 92-993569 921221 (7)
DT Utility
EXNAM Primary Examiner: Scheiner, Toni R.; Assistant Examiner: Green, Lora M.
LREP Everett, John R.
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 658
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A specific binding immunoassay method for reducing the "hook" effect for the measurement of C-Reactive Protein has been discovered for both solution and dry analytical elements comprising contacting a liquid sample containing C-reactive protein in the presence of calcium ions with (a) a first antibody Ab1 specific for C-reactive protein, Ab1 being immobilized on a water-insoluble substrate and (b) a labeled, unbound second antibody Ab2 specific for C-reactive protein to obtain a water-insoluble complex of Ab1, ligand, and Ab2; (2) separating the water-insoluble complex from the liquid sample and unreacted Ab2; and (3) measuring either the amount of Ab2 associated with said water-insoluble complex or the amount of unreacted Ab2 as an indication of the amount of C-reactive protein in the sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 6 OF 29 USPATFULL
AN 94:37846 USPATFULL
TI Method of preparing biologically active reagents from succinimide-containing polymers, analytical element and methods of use
IN Sutton, Richard C., Rochester, NY, United States
Ponticello, Ignazio S., Pittsford, NY, United States
Danielson, Susan J., Rochester, NY, United States
Oenick, Marsha D. B., Rochester, NY, United States
PA Eastman Kodak Company, Rochester, NY, United States (U.S. corporation)
PI US 5308749 940503
AI US 91-646303 910125 (7)
DT Utility
EXNAM Primary Examiner: Saunders, David; Assistant Examiner: Chin, Christopher L.
LREP James, Betty Joy
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings

LN.CNT 1174
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Biologically active reagents are prepared from particles of copolymers having highly active succinimid groups. The reagents are prepared by covalently attaching biologically active substances, for example antibodies, to the particles, directly or indirectly through amide groups by displacement of highly active succinimid groups on the particle surface. These reagents are used to advantage in analytical elements, methods for the detection of specific binding ligands (such as immunological species) and immunoassays, and in purification methods such as affinity chromatography.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 7 OF 29 USPATFULL
AN 93:93685 USPATFULL
TI Immunoseparating strip
IN Olson, John D., Sunnyvale, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5260194 931109
AI US 91-787997 911105 (7)
DCD 20050426
RLI Continuation of Ser. No. US 90-566949, filed on 13 Aug 1990, now patented, Pat. No. US 5085987, issued on 4 Feb 1992 which is a continuation of Ser. No. US 87-13615, filed on 12 Feb 1987, now patented, Pat. No. US 4963468, issued on 16 Oct 1990 which is a continuation-in-part of Ser. No. US 86-904597, filed on 5 Sep 1986, now patented, Pat. No. US 4959307, issued on 25 Sep 1990
DT Utility
EXNAM Primary Examiner: Saunders, David
LREP Leitereg, Theodore J.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1107
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte is disclosed. The method involves contacting a test solution containing the sample, an antibody for the analyte, and a conjugate of the analyte and a label with a contact portion of a piece of bibulous material capable of being traversed in at least one direction by the test solution through capillary action. The bibulous material contains a first receptor capable of binding to said conjugate. The first receptor is non-diffusively bound to a situs on the bibulous material separate from the contact portion. The bibulous material further contains a second receptor capable of binding the antibody to the analyte between the situs and the contact portion. The second receptor is non-diffusively bound to the bibulous material. At least a portion of the test solution is allowed to traverse the bibulous material by capillary action and thereby contact the situs. The situs is examined for the presence of the conjugate. To this end, the situs can be exposed to a signal producing means capable of interacting with the label to produce a signal in relation to the amount of analyte in the test solution. The signal produced at the situs is then detected.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 8 OF 29 USPATFULL
AN 93:93684 USPATFULL
TI Immunoseparating strip
IN Olson, John D., Sunnyvale, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5260193 931109
AI US 91-787996 911105 (7)
DCD 20050426
RLI Continuation of Ser. No. US 90-548046, filed on 5 Jul 1990, now patented, Pat. No. US 5085988, issued on 4 Feb 1992 which is a continuation of Ser. No. US 86-904597, filed on 5 Sep 1986, now patented, Pat. No. US 4959307, issued on 25 Sep 1990
DT Utility
EXNAM Primary Examiner: Saunders, David
LREP Leitereg, Theodore J.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1008
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte is disclosed. The method involves contacting a test solution containing the sample, an antibody for the analyte, and a conjugate of the analyte and a label with a contact portion of a strip of bibulous material capable of being traversed by the test solution through capillary action. The strip contains a first receptor capable of binding to said conjugate. The first receptor is non-diffusively bound to a situs on the strip separate from the contact portion of the strip. The strip further contains a second receptor capable of binding the antibody to the analyte between the situs and the contact portion. The second receptor is non-diffusively bound to the strip. At least a portion of the test solution is allowed to traverse the strip by capillary action and thereby contact the situs. The strip is exposed to a signal producing means capable of interacting with the label to produce a signal in relation to the amount of analyte in the test solution. The signal produced at the situs is then detected.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 9 OF 29 USPATFULL
AN 92:34049 USPATFULL
TI Assay for determining analyte using mercury release followed by detection via interaction with aluminum
IN Smith, Roger E., Bountiful, UT, United States
Astill, Mark E., Centerville, UT, United States
PA Thorne, Smith, Astill Technologies, Inc., Ogden, UT, United States (U.S. corporation)
PI US 5108889 920428
AI US 88-256785 881012 (7)
DT Utility
EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Marschel, Ardin H.
LREP Cornaby, K. S.
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 38 Drawing Figure(s); 20 Drawing Page(s)

LN.CNT 3174
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An assay employing a tracer comprising a ligand having a mercury label wherein mercury label is released from at least one of a bound or free tracer phase and interacts with a metal. Analyte is determined by a change in at least one property of the metal caused by such interaction. The invention also relates to a device for such an assay wherein mercury ions released from a free or bound tracer are caused to eventually amalgamate with a metal, and the presence and/or amount of analyte is determined by changes in the metal resulting from the eventual amalgamation which may be measured electrically or by other means. The invention also relates to novel assay instruments, novel lancets, assay sensors, assay sensor packets, instrumentation and combinations of assay components, and related methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 10 OF 29 USPATFULL
AN 92:9038 USPATFULL
TI Immunoseparating strip
IN Olson, John D., Sunnyvale, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5085988 920204
AI US 90-548046 900705 (7)
DCD 20050426
RLI Continuation of Ser. No. US 86-904597, filed on 5 Sep 1986, now patented, Pat. No. US 4959307
DT Utility
EXNAM Primary Examiner: Saunders, David A.
LREP Leitereg, Theodore J.
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1066
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte are disclosed. The method involves contracting a test solution containing the sample, an antibody for the analyte, and a conjugate of the analyte and a label with a contact portion of a strip of bibulous material capable of being traversed by the test solution through capillary action. The strip contains a first receptor capable of binding to the conjugate. The first receptor is non-diffusively bound to a situs on the strip separate from the contact portion of the strip. The strip further contains a second receptor capable of binding the antibody to the analyte between the situs and the contact portion. The second receptor is non-diffusively bound to the strip. At least a portion of the test solution is allowed to traverse the strip by capillary action and thereby contact the situs. The strip is exposed to a signal producing means capable of interacting with the label to produce a signal in relation to the amount of analyte in the test solution. The signal produced at the situs is then detected.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 11 OF 29 USPATFULL
AN 92:9037 USPATFULL

TI Immunoseparating strip
IN Olson, John D., Sunnyvale, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 5085987 920204
AI US 90-566949 900813 (7)
DCD 20050426
RLI Continuation of Ser. No. US 87-13615, filed on 12 Feb 1987, now patented, Pat. No. US 4963468 which is a continuation-in-part of Ser. No. US 86-904597, filed on 5 Sep 1986, now patented, Pat. No. US 4959307
DT Utility
EXNAM Primary Examiner: Saunders, David
LREP Leitereg, Theodore J.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1150
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte is disclosed. The method involves contacting a test solution containing the sample, an antibody for the analyte, and a conjugate of the analyte and a label with a contact portion of a piece of bibulous material capable of being traversed in at least one direction by the test solution through capillary action. The bibulous material contains a first receptor capable of binding to said conjugate. The first receptor is non-diffusively bound to a situs on the bibulous material separate from the contact portion. The bibulous material further contains a second receptor capable of binding the antibody to the analyte between the situs and the contact portion. The second receptor is non-diffusively bound to the bibulous material. At least a portion of the test solution is allowed to traverse the bibulous material by capillary action and thereby contact the situs. The situs is examined for the presence of the conjugate. To this end, the situs can be exposed to a signal producing means capable of interacting with the label to produce a signal in relation to the amount of analyte in the test solution. The signal produced at the situs is then detected.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 12 OF 29 USPATFULL
AN 91:73004 USPATFULL
TI Medical droplet whole blood and like monitoring
IN Smith, Roger E., Bountiful, UT, United States
Astill, Mark E., Centerville, UT, United States
Smith, Jay L., Ogden, UT, United States
Thorne, Gale H., Bountiful, UT, United States
PA Thorne, Smith, Astill Technologies, Inc., Ogden, UT, United States (U.S. corporation)
PI US 5047044 910910
AI US 90-484154 900223 (7)
RLI Division of Ser. No. US 88-256678, filed on 12 Oct 1988
DT Utility
EXNAM Primary Examiner: Hindenburg, Max
LREP Cornaby, K. S.
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 39 Drawing Figure(s); 20 Drawing Page(s)

LN.CNT 3197
AB An assay employing a tracer comprising a ligand having a mercury label wherein mercury label is released from at least one of a bound or free tracer phase and interacts with a metal. Analyte is determined by a change in at least one property of the metal caused by such interaction. The invention also relates to a device for such an assay wherein mercury ions released from a free or bound tracer are caused to eventually amalgamate with a metal, and the presence and/or amount of analyte is determined by changes in the metal resulting from the eventual amalgamation which may be measured electrically or by other means. The invention also relates to novel assay instruments, novel lancets, assay sensors, assay sensor packets, instrumentation and combinations of assay components, and related methods.

L30 ANSWER 13 OF 29 USPATFULL
AN 91:16310 USPATFULL
TI Medical droplet whole blood and like monitoring
IN Smith, Roger E., Bountiful, UT, United States
Astill, Mark E., Centerville, UT, United States
Smith, Jay L., Ogden, UT, United States
Thorne, Gale H., Bountiful, UT, United States
PA Thorne, Smith, Astill Technologies, Inc., Ogden, UT, United States (U.S. corporation)
PI US 4995402 910226
AI US 88-256678 881012 (7)
DT Utility
EXNAM Primary Examiner: Hindenburg, Max
LREP Cornaby, K. S.
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN 38 Drawing Figure(s); 20 Drawing Page(s)
LN.CNT 3265
AB An assay employing a tracer comprising a ligand having a mercury label wherein mercury label is released from at least one of a bound or free tracer phase and iunteracts with a metal. Analyte is determined by a change in at least one property of the metal caused by such interaction. The invention also relates to a device for such an assay wherein mercury ions released from a free or bound tracer are caused to eventually amalgamate with a metal, and the presence and/or amount of analyte is determined by changes in the metal resulting from the eventual amalgamation which may be measured electrically or by other means. The invention also relates to novel assay instruments, novel lancets, assay sensors, assay sensor packets, instrumentation and combinations of assay components, and related methods.

L30 ANSWER 14 OF 29 USPATFULL
AN 90:83580 USPATFULL
TI Analytical element and the analytical method using the element
IN Ito, Tsukasa, Musashino, Japan
Kawakatsu, Satoshi, Hachioji, Japan
Onishi, Akira, Hino, Japan
Takekoshi, Masayo, Sagamihara, Japan
PA Konishiroku Photo Industry Co., Ltd., Tokyo, Japan (non-U.S. corporation)
PI US 4966856 901030
AI US 87-110096 871015 (7)

RLI Continuation of Ser. No. US 86-874504, filed on 16 Jun 1986, now abandoned
PRAI JP 85-131955 850619
DT Utility
EXNAM Primary Examiner: Marcus, Michael S.; Assistant Examiner: Johnston, Jill
LREP Frishauf, Holtz, Goodman & Woodward
CLMN Number of Claims: 18
ECL Exemplary Claim: 1,18
DRWN 7 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1389
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An analytical element and method using the element for measuring a specific component in a fluid sample such as blood, serum, plasma, urine, sweat etc. The fluid sample is applied on the element with a labeled-material formed by binding the specific component or the analogue of it with a labeling material causing a signal. The element comprises a reaction layer and an absorption layer. The reaction layer contains a material which is capable of specifically binding with the component to be measured and the absorption layer contains a material which capable of binding with the labeled material and decreasing a signal caused by the labeling material. A strength of the signal caused labeled-material in the reaction layer is determined to measure the specific component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 15 OF 29 USPATFULL
AN 90:79798 USPATFULL
TI Immunoseparating strip
IN Olson, John D., Sunnyvale, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 4963468 901016
AI US 87-13615 870212 (7)
DCD 20050426
RLI Continuation-in-part of Ser. No. US 86-904597, filed on 5 Sep 1986
DT Utility
EXNAM Primary Examiner: Kepplinger, Esther L.; Assistant Examiner: Saunders, David A.
LREP Leitereg, Theodore J.; Swiss, Gerald F.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1182
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte is disclosed. The method involves contacting a test solution containing the sample, an antibody for the analyte, and a conjugate of the analyte and a label with a contact portion of a piece of bibulous material capable of being traversed in at least one direction by the test solution through capillary action. The bibulous material contains a first receptor capable of binding to said conjugate. The first receptor is non-diffusively bound to a situs on the bibulous material separate from the contact portion. The bibulous material further contains a second receptor capable of binding the antibody to the analyte between the situs and the contact portion. The second receptor is non-diffusively bound to the bibulous material.

At least a portion of the test solution is allowed to traverse the bibulous material by capillary action and thereby contact the situs. The situs is examined for the presence of the conjugate. To this end, the situs can be exposed to a signal producing means capable of interacting with the label to produce a signal in relation to the amount of analyte in the test solution. The signal produced at the situs is then detected.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 16 OF 29 USPATFULL
AN 90:75041 USPATFULL
TI Immunoseparating strip
IN Olson, John D., Sunnyvale, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 4959307 900925
AI US 86-904597 860905 (6)
DCD 20050426
DT Utility
EXNAM Primary Examiner: Kepplinger, Esther L.; Assistant Examiner: Saunders, David A.
LREP Leitereg, Theodore J.; Swiss, Gerald F.
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1090
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte are disclosed. The method involves contacting a test solution containing the sample, an antibody for the analyte, and a conjugate of the analyte and a label with a contact portion of a strip of bibulous material capable of being traversed by the test solution through capillary action. The strip contains a first receptor capable of binding to the conjugate. The first receptor is non-diffusively bound to a situs on the strip separate from the contact portion of the strip. The strip further contains a second receptor capable of binding the antibody to the analyte between the situs and the contact portion. The second receptor is non-diffusively bound to the strip. At least a portion of the test solution is allowed to traverse the strip by capillary action and thereby contact the situs. The strip is exposed to a signal producing means capable of interacting with the label to produce a signal in relation to the amount of analyte in the test solution. The signal produced at the situs is then detected.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 17 OF 29 USPATFULL
AN 89:90787 USPATFULL
TI Concentrating immunochemical test strip
IN Weng, Litai, Mountain View, CA, United States
Calderhead, David, Menlo Park, CA, United States
Khanna, Pyare, San Jose, CA, United States
Ullman, Edwin F., Atherton, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 4879215 891107
AI US 88-164308 880304 (7)

DCD 20050426
RLI Continuation of Ser. No. US 85-701464, filed on 14 Feb 1985, now patented, Pat. No. US 4740468
DT Utility
EXNAM Primary Examiner: Nucker, Christine M.
LREP Leitereg, Theodore J.
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1204
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte is disclosed. The method involves contacting a test solution containing the sample and a first member of a specific binding pair with an end portion of a strip of bibulous material capable of being traversed by the test solution through capillary action. The first member of a specific binding pair is capable of binding the analyte. The strip contains a second member of a specific binding pair integral therewith for concentrating and non-diffusively binding the first sbp member at a small situs on the strip separated from the end portion of the strip. The detectible signal is produced in relation to the presence of the analyte in the test solution. The test solution passes through the situs as the test solution traverses the bibulous material. After the test solution has been allowed to traverse at least a portion of the strip, the strip is contacted with a developer solution containing members of a signal producing system in a manner that provides contact of the developer solution with the small situs following its contact with the test solution. The strip is then contacted with any remaining members of the signal producing system. The detectible signal produced at the situs is then compared with the signal detectible at a portion of the strip other than the situs to determine the analyte in the sample. In one embodiment of the invention the signal produced at the small situs has a sharp-edged distinctive pattern that provides a sharp contrast to the signal produced at adjacent sites on the strip when analyte is present in the test solution.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 18 OF 29 USPATFULL
AN 89:80721 USPATFULL
TI Multilayer analysis element
IN Akiyoshi, Yutaka, Saitama, Japan
Kondo, Asaji, Saitama, Japan
Kitajima, Masao, Saitama, Japan
PA Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)
PI US 4870005 890926
AI US 85-787713 851016 (6)
RLI Continuation of Ser. No. US 84-628979, filed on 12 Jul 1984, now abandoned which is a continuation of Ser. No. US 82-440045, filed on 8 Nov 1982, now abandoned which is a continuation-in-part of Ser. No. US 81-311718, filed on 15 Oct 1981, now abandoned
PRAI JP 80-144849 801015
EP 81-108364 811015
DT Utility
EXNAM Primary Examiner: Richman, Barry S.; Assistant Examiner: Johnston, Jill
LREP Sughrue, Mion, Zinn, Macpeak & Seas

CLMN Number of Claims: 42
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1104
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A dry type multilayer analysis element comprises at least one porous medium layer comprising a membrane filter, to which an antigen (or antibody) is immobilized, and at least one reagent layer through which a substance(s) which did not participate in an antigen-antibody reaction can permeate.

The multilayer analysis element is effective for assaying components present in body fluids, blood, urine, etc., in a simple manner.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 19 OF 29 USPATFULL
AN 89:78674 USPATFULL
TI Analytical element and method for determining a component in a test sample
IN Ito, Tsukasa, Musashino, Japan
Kawakatsu, Satoshi, Hachioji, Japan
Onishi, Akira, Hino, Japan
Ishikawa, Masayo, Tokyo, Japan
PA Konishiroku Photo Industry Co., Ltd., Tokyo, Japan (non-U.S. corporation)
PI US 4868106 890919
AI US 86-919676 861016 (6)
PRAI JP 85-229799 851017
JP 85-229800 851017
DT Utility
EXNAM Primary Examiner: Rosen, Sam; Assistant Examiner: Saunders, David A.
LREP Finnegan, Henderson, Farabow, Garrett & Dunner
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1509
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are an analytical element for determining a specific component A in a test sample, based on the specific reaction between said specific component A and a substance B capable of binding specifically to said specific component A, by the use of a labelled material L comprising a label capable of providing a signal and said specific component A or comprising a label capable of providing a signal and a substance C capable of binding specifically to said specific component A, characterized in that said element has a porous reaction layer formed by the use of a mixture containing (a) a carrier having said substance B immobilized thereon and (b) a carrier having an absorbing substance D capable of binding specifically to said labelled material L which has not bound to said substance B or to said specific compound A, to thereby modulate said signal, and an analytical method employing the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 20 OF 29 USPATFULL
AN 89:30045 USPATFULL

TI Process for labeling single-stranded nucleic acids and hybridizaiton probes
IN Watson, Robert M., Berkeley, CA, United States
Sheldon, III, Edward L., Oakland, CA, United States
Snead, Richard M., Oakland, CA, United States
PA Cetus Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 4822731 890418
AI US 86-819490 860109 (6)
DT Utility
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Krupen, Karen
LREP Kaster, Kevin R.; Hasak, Janet E.; Halluin, Albert P.
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1526
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acids may be labeled by complexing the alkylating moiety of a labeling reagent into a single-stranded nucleic acid to form a complex and activating the complex to cause covalent bonding between the reagent and the nucleic acid. Preferably, the labeled nucleic acid is a single-stranded hybridization probe for detecting nucleic acid sequences capable of hybridizing with a hybridizing region of the nucleic acid. Also preferably the label moiety is non-radioactive. The labeling reagent is of the formula:

[A--[B--L

where A is an alkylating moiety, B is a divalent organic moiety of the formula: ##STR1## where Y is O, NH or N--CHO, x is a number from 1 to 4, y is a number from 2 to 4, and L is a monovalent label moiety, wherein B is exclusive of any portion of the alkylating and label moieties.

Preferably A is a 4-methylene-substituted psoralen moiety, and most preferably A is a 4'-methylene-substituted-4,5',8-trimethylpsoralen moiety and L is biotin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 21 OF 29 USPATFULL
AN 89:10849 USPATFULL
TI Assay procedures
IN Morrison, Larry E., Lisle, IL, United States
Royer, Garfield P., Warrenville, IL, United States
Heller, Michael J., Poway, CA, United States
PA Amoco Corporation, Chicago, IL, United States (U.S. corporation)
PI US 4804625 890214
AI US 84-656011 840927 (6)
DT Utility
EXNAM Primary Examiner: Kepplinger, Esther M.
LREP Janiuk, Anthony J.; Magidson, William M.; Medhurst, Ralph C.
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1115
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Binding assay methods involving determining the presence of analytes in samples through enzymatic formation of detectable

substances in amounts related to the amount of analyte present in the sample and monitoring for the presence of the substances in distinct phases. Methods according to the invention include use of labelled materials which associate with the analyte to be determined or compete with the analyte for association with an added binder. The labelled materials employed include label portions which enzymatically form substances from substrates provided in or existing as a first phase, or, upon enzymatic treatment in a first phase, disassociate into substances capable of existing in or as a second distinct phase. Formation of the detectable substances is monitored by determining the transfer of the substance to a second distinct phase in contact with the first phase or by determining formation of a second distinct phase. The assays are useful in determining human IgG protein in blood samples and other constituents of blood or other biological samples without elaborate instrumentation, allowing for practice outside the clinical laboratory.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 22 OF 29 USPATFULL
AN 89:9403 USPATFULL
TI Carbamic acid ester useful for preparing a nucleic acid probe
IN Levenson, Corey H., Oakland, CA, United States
Mullis, Kary B., Kensington, CA, United States
PA Cetus Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 4803297 890207
AI US 87-72339 870713 (7)
RLI Division of Ser. No. US 86-888252, filed on 21 Jul 1986, now patented, Pat. No. US 4705886 which is a division of Ser. No. US 85-791332, filed on 25 Oct 1985, now patented, Pat. No. US 4617261 which is a continuation-in-part of Ser. No. US 84-683263, filed on 18 Dec 1984, now patented, Pat. No. US 4582789 which is a continuation-in-part of Ser. No. US 84-591811, filed on 21 May 1984, now abandoned
DT Utility
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Whittenbaugh, Robert C.
LREP Halluin, Albert P.; Hasak, Janet E.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2072
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acids may be labeled by intercalating the alkylating intercalation moiety of a labeling reagent into a partially double-stranded nucleic acid to form a complex and activating the complex to cause covalent bonding between the reagent and the nucleic acid. Preferably, the labeled nucleic acid is hybridization probe for detecting nucleic acid sequences capable of hybridizing with a hybridizing region of the nucleic acid. Also preferably the label moiety is non-radioactive. The labeling reagent is of the formula:

[A--[B--L

where A is an alkylating intercalation moiety, B is a divalent organic moiety of the formula: ##STR1## where Y is O, NH or N--CHO, x is a number from 1 to 4, y is a number from 2 to 4, and

L is a monovalent label moiety, wherein B is exclusive of any portion of the intercalation and label moieties.

Preferably A is a 4-methylene-substituted psoralen moiety, and most preferably A is a 4'-methylene-substituted-4,5',8-trimethylpsoralen moiety and L is biotin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 23 OF 29 USPATFULL
AN 88:37773 USPATFULL
TI Precursor to nucleic acid probe
IN Levenson, Corey H., Oakland, CA, United States
Mullis, Kary B., Kensington, CA, United States
PA Cetus Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 4751313 880614
AI US 87-72531 870713 (7)
RLI Division of Ser. No. US 86-888252, filed on 21 Jul 1986, now patented, Pat. No. US 4705886 And Ser. No. US 85-791332, filed on 25 Oct 1985, now patented, Pat. No. US 4617261 which is a continuation-in-part of Ser. No. US 84-683263, filed on 18 Dec 1984, now patented, Pat. No. US 4582789 which is a continuation-in-part of Ser. No. US 84-591811, filed on 21 Mar 1984, now abandoned
DT Utility
EXNAM Primary Examiner: Schwartz, Richard A.
LREP Halluin, Albert P.; Hasak, Janet E.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2140
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acids may be labeled by intercalating the alkylating intercalation moiety of a labeling reagent into a partially double-stranded nucleic acid to form a complex and activating the complex to cause covalent bonding between the reagent and the nucleic acid. Preferably, the labeled nucleic acid is a hybridization probe for detecting nucleic acid sequences capable of hybridizing with a hybridizing region of the nucleic acid. Also preferably the label moiety is non-radioactive. The labeling reagent is of the formula:

[A][B]L

where A is an alkylating intercalation moiety, B is a divalent organic moiety of the formula: ##STR1## where Y is O, NH or N--CHO, x is a number from 1 to 4, y is a number from 2 to 4, and L is a monovalent label moiety, wherein B is exclusive of any portion of the intercalation and label moieties.

Preferably A is a 4-methylene-substituted psoralen moiety, and most preferably A is a 4'-methylene-substituted-4,5',8-trimethylpsoralen moeity and L is biotin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 24 OF 29 USPATFULL
AN 88:26039 USPATFULL
TI Concentrating immunochemical test device and method

IN Weng, Litai, Mountain View, CA, United States
Calderhead, David, Menlo Park, CA, United States
Khanna, Pyare, San Jose, CA, United States
Ullman, Edwin F., Atherton, CA, United States
PA Syntex (U.S.A.) Inc., Palo Alto, CA, United States (U.S. corporation)
PI US 4740468 880426
AI US 85-701464 850214 (6)
DT Utility
EXNAM Primary Examiner: Marantz, Sidney
LREP Leitereg, Theodore J.
CLMN Number of Claims: 80
ECL Exemplary Claim: 1,29
DRWN No Drawings
LN.CNT 1483
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method and device for determining the presence of an analyte in a sample suspected of containing the analyte is disclosed. The method involves contacting a test solution containing the sample and a first member of a specific binding pair with an end portion of a strip of bibulous material capable of being traversed by the test solution through capillary action. The first member of a specific binding pair is capable of binding the analyte. The strip contains a second member of a specific binding pair integral therewith for concentrating and non-diffusively binding the first sbp member at a small situs on the strip separated from the end portion of the strip. The detectible signal is produced in relation to the presence of the analyte in the test solution. The test solution passes through the situs as the test solution traverses the bibulous material. After the test solution has been allowed to traverse at least a portion of the strip, the strip is contacted with a developer solution containing members of a signal producing system in a manner that provides contact of the developer solution with the small situs following its contact with the test solution. The strip is then contacted with any remaining members of the signal producing system. The detectible signal produced at the situs is then compared with the signal detectible at a portion of the strip other than the situs to determine the analyte in the sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 25 OF 29 USPATFULL
AN 87:78077 USPATFULL
TI Precursor to nucleic acid probe
IN Levenson, Corey H., Oakland, CA, United States
Mullis, Kary B., Kensington, CA, United States
PA Cetus Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 4705886 871110
AI US 86-888252 860721 (6)
RLI Division of Ser. No. US 85-791332, filed on 25 Oct 1985, now patented, Pat. No. US 4617261 which is a continuation-in-part of Ser. No. US 84-683263, filed on 18 Dec 1984, now patented, Pat. No. US 4582789 which is a continuation-in-part of Ser. No. US 84-591811, filed on 21 Mar 1984, now abandoned
DT Utility
EXNAM Primary Examiner: Schwartz, Richard A.
LREP Hasak, Janet E.; Halluin, Albert P.
CLMN Number of Claims: 1

ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 2137
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acids may be labeled by intercalating the alkylating intercalation moiety of a labeling reagent into a partially double-stranded nucleic acid to form a complex and activating the complex to cause covalent bonding between the reagent and the nucleic acid. Preferably, the labeled nucleic acid is a hybridization probe for detecting nucleic acid sequences capable of hybridizing with a hybridizing region of the nucleic acid. Also preferably the label moiety is non-radioactive. The labeling reagent is of the formula:

[A--[B--L

where A is an alkylating intercalation moiety, B is a divalent organic moiety of the formula: ##STR1## where Y is O, NH or N--CHO, x is a number from 1 to 4, y is a number from 2 to 4, and L is a monovalent label moiety, wherein B is exclusive of any portion of the intercalation and label moieties.

Preferably A is a 4-methylene-substituted psoralen moiety, and most preferably A is a 4'-methylene-substituted-4,5', 8-trimethylpsoralen moiety and L is biotin.

This patent application is a divisional application of copending U.S. Ser. No. 791,332 filed Oct. 25, 1985, now U.S. Pat. No. 4,617,261, which is a continuation-in-part application (CIP) of copending U.S. Ser. No. 683,263 filed Dec. 18, 1984, now U.S. Pat. No. 4,582,789 which is a CIP of copending U.S. Ser. No. 591,811 filed Mar. 21, 1984, now abandoned. This patent application is also related to copending U.S. application Ser. No. 791,323 filed Oct. 25, 1985.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 26 OF 29 USPATFULL
AN 86:57896 USPATFULL
TI Process for labeling nucleic acids and hybridization probes
IN Sheldon, III, Edward L., Oakland, CA, United States
Levenson, Corey H., Oakland, CA, United States
Mullis, Kary B., Kensington, CA, United States
Rapoport, Henry, Berkeley, CA, United States
Watson, Robert M., Berkeley, CA, United States
PA Cetus Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 4617261 861014
AI US 85-791332 851025 (6)
RLI Continuation-in-part of Ser. No. US 84-683263, filed on 18 Dec 1984 which is a continuation-in-part of Ser. No. US 84-591811, filed on 21 Mar 1984
DT Utility
EXNAM Primary Examiner: Nucker, Christine M.
LREP Halluin, Albert P.; Hasak, Janet E.
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 2330
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Nucleic acids may be labeled by intercalating the alkylating intercalation moiety of a labeling reagent into a partially double-stranded nucleic acid to form a complex and activating the complex to cause covalent bonding between the reagent and the nucleic acid. Preferably, the labeled nucleic acid is a hybridization probe for detecting nucleic acid sequences capable of hybridizing with a hybridizing region of the nucleic acid. Also preferably the label moiety is non-radioactive. The labeling reagent is of the formula:

[A--[B--L

where A is an alkylating intercalation moiety, B is a divalent organic moiety of the formula: ##STR1## where Y is O, NH or N--CHO, x is a number from 1 to 4, y is a number from 2 to 4, and L is a monovalent label moiety, wherein B is exclusive of any portion of the intercalation and label moieties.

Preferably A is a 4-methylene-substituted psoralen moiety, and most preferably A is a 4'-methylene-substituted-4,5',8-trimethylpsoralen moeity and L is biotin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 27 OF 29 USPATFULL
AN 86:26466 USPATFULL
TI Multi-layer analysis element utilizing specific binding reaction
IN Nagatomo, Shigeru, Kanagawa, Japan
Yasuda, Yukio, Kanagawa, Japan
Masuda, Nobuhito, Kanagawa, Japan
Makiuchi, Hajime, Kanagawa, Japan
Okazaki, Masaki, Kanagawa, Japan
PA Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)
PI US 4587102 860506
AI US 84-637324 840802 (6)
RLI Continuation of Ser. No. US 82-446110, filed on 2 Dec 1982, now abandoned which is a continuation-in-part of Ser. No. US 82-361022, filed on 23 Mar 1982, now abandoned which is a continuation-in-part of Ser. No. US 81-311806, filed on 15 Oct 1981, now abandoned
PRAI JP 81-86655 810605
DT Utility
EXNAM Primary Examiner: Turk, Arnold
LREP Sughrue, Mion, Zinn, Macpeak & Seas
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1127
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A dry type multilayer analysis element for assaying a concentration of a specific component utilizing a competitive immunological reaction comprises a detection element comprising a detection layer which receives a labelled complex formed as a result of the competitive immunological reaction or an optically detectable change formed dependent upon an amount of the labelled complex of the specific component and having further provided thereon the detection layer a reaction layer comprising a fibrous porous medium containing fine particles therein. The multilayer analysis element absorbs an amount of a sample solution necessary for the competitive immunological reaction so that the multilayer

analysis element has high sensitivity and high reproducibility.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 28 OF 29 USPATFULL
AN 84:52825 USPATFULL
TI Analysis film and a method of analysis using the same
IN Masuda, Nobuhito, Kanagawa, Japan
Yasuda, Yukio, Kanagawa, Japan
Nagatomo, Shigeru, Kanagawa, Japan
Makiuchi, Hajime, Kanagawa, Japan
Okazaki, Masaki, Kanagawa, Japan
PA Fuji Photo Film Co., Ltd., Kanagawa, Japan (non-U.S. corporation)
PI US 4472498 840918
AI US 82-401771 820726 (6)
PRAI JP 81-116827 810724
DT Utility
EXNAM Primary Examiner: Marantz, Sidney
LREP Sughrue, Mion, Zinn, Macpeak & Seas
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1843
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An analysis film comprises a reagent layer composed of a porous material which contains an antibody but does not substantially contain a complex of an analyte or a labelled antigen with the antibody. In the analysis film, reagents for enzyme immune reaction of homogenous type are incorporated so that an analyte is analyzed without requiring B/F separation. An analysis method for various analytes using the same provides high sensitivity, high accuracy as well as good reproducibility and is simple and rapid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 29 OF 29 USPATFULL
AN 75:57632 USPATFULL
TI Quantitative detection of endotoxin in biological fluids
IN Levin, Jack, Baltimore, MD, United States
PA The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 3915805 751028
AI US 73-364461 730529 (5)
RLI Continuation of Ser. No. US 70-40348, filed on 25 May 1970, now abandoned
DT Utility
EXNAM Primary Examiner: Naff, David M.
LREP Finch, Walter G.
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 264
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An in vitro method as well as an article is provided for quantitative detection of endotoxin in biologicals, biological fluids, such as blood, and any protein containing material by an indicator comprising amebocyte lysate. This method or technique consists in first centrifuging a blood sample to obtain plasma, and then admixing chloroform with the plasma to precipitate certain protein fractions of the plasma. The mixture of chloroform

and plasma is then centrifuged to sediment the precipitated protein and results in the formation of an aqueous layer, an intermediate layer, and a chloroform layer. The intermediate layer is then removed, and a clottable substrate, namely amebocyte lysate is then admixed with the removed intermediate layer. The rate of reaction which is proportional to the concentration of endotoxin in the sample is measured as manifested by the increase in turbidity thereof. The clottable substrate, namely amebocyte lysate, is obtained from amebocytes of Limulus and is provided as an article of manufacture for use in the detection of the endotoxin in the biological fluid sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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s acetaminophen and ferricyanide
1134 ACETAMINOPHEN
2955 FERRICYANIDE
L1 7 ACETAMINOPHEN AND FERRICYANIDE

=> s acetaminophen and maleimide
1134 ACETAMINOPHEN
5293 MALEIMIDE
L2 11 ACETAMINOPHEN AND MALEIMIDE

=> d l1 1-7 cit ab

1. 5,589,393, Dec. 31, 1996, Method for preparing a glycated hemoglobin solution; Michael D. Fiechtner, et al., 436/15; 356/42; 436/8, 10, 16, 66, 67, 826 [IMAGE AVAILABLE]

US PAT NO: 5,589,393 [IMAGE AVAILABLE] L1: 1 of 7

ABSTRACT:
The invention is a rapid, continuous test for glycated hemoglobin using a non-equilibrium affinity binding method. Agarose beads derivatized with 3-aminophenylboronic acid specifically bind glycated hemoglobin. This solid phase is incorporated into a sample processor card, modified to mix and to separate the test solution from the solid phase prior to absorbance readings. Two absorbance readings are made on the test solution, one immediately after mixing the reagent/diluent with the specimen, and one after a significant amount of binding has occurred. A linear correlation between total glycated hemoglobin and hemoglobin A.sub.1c permits standardization and reporting of units equivalent to % hemoglobin A.sub.1c. Stable glycated hemoglobin solutions for use as standards in the assay, and a method for preparing the standards are also disclosed.

2. 5,589,326, Dec. 31, 1996, Osmium-containing redox mediator; Zhi D. Deng, et al., 435/4, 14, 25, 817 [IMAGE AVAILABLE]

US PAT NO: 5,589,326 [IMAGE AVAILABLE] L1: 2 of 7

ABSTRACT:
A new group of Os(II) and Os(III) compounds useful as redox mediators in electrochemical biosensors. These compounds have 1) low oxidation potential, 2) fast reaction kinetics between the electroactive center of an enzyme and the compound, 3) slow oxidation of osmium by oxygen, and 4) excellent solubility in aqueous medium. These mediators are particularly useful as a component of a reagent used in an electrochemical biosensor, wherein the biosensor is useful for measuring analytes from a biological fluid, such as blood.

3. 5,428,163, Jun. 27, 1995, Prodrugs for selective drug delivery; Randell L. Mills, 544/232 [IMAGE AVAILABLE]

US PAT NO: 5,428,163 [IMAGE AVAILABLE] L1: 3 of 7

ABSTRACT:
A broad class of pharmaceutical agents which react directly with electron carriers or with reactive species produced by electron transport to release a pharmacologically active molecule to effect a therapeutic functional change in the organism by a receptor or nonrecepter mediated action.

4. 5,262,171, Nov. 16, 1993, Pharmaceutical tablet with PVP having enhanced drug dissolution rate; Robert B. Login, et al., 424/465, 485; 514/772.5, 960; 526/93, 94, 218.1, 219.6, 227, 230.5, 264, 915, 936 [IMAGE AVAILABLE]

US PAT NO: 5,262,171 [IMAGE AVAILABLE] L1: 4 of 7

ABSTRACT:
A pharmaceutical tablet is provided herein having an effective dissolution rate. The tablet contains a pharmaceutically-active ingredient and a substantially linear, i.e. non-crosslinked K-30 to K-120 PVP as a binding agent. The PVP used herein is made by an initiated polymerization process in which vinyl pyrrolidone monomer is polymerized in the presence of an initiator which produces a linear PVP polymerization, i.e. is a poor hydrogen abstractor of PVP polymer backbones, which would produce a disadvantageous crosslinked PVP product. Suitable initiators include low energy peroxyester free radical initiators, such as t-amylperoxy pivalate, an azo initiator, or a redox initiator which can perform at low temperatures.
Preferably the residual initiator level in the PVP is reduced to less than 500 ppm, thereby further precluding the possibility of crosslinking of the PVP polymer during the shelf-life of the tablet.

5. 5,250,439, Oct. 5, 1993, Use of conductive sensors in diagnostic assays; Matthew K. Musho, et al., 205/778; 204/403; 435/14, 25, 28; 436/95, 151 [IMAGE AVAILABLE]

US PAT NO: 5,250,439 [IMAGE AVAILABLE] L1: 5 of 7

ABSTRACT:
A conductive sensor and its use in a diagnostic assay are disclosed. The miniaturized conductive sensor, utilizing a conducting polymer, is used in a diagnostic device to determine the presence or concentration of a predetermined analyte in a liquid test sample, wherein the predetermined analyte, like glucose, is assayed by an oxidase interaction. The interaction between the oxidase and a small amount of the predetermined analyte in the test sample generates, either directly or indirectly, a dopant compound in a reaction zone of the conductive sensor. The dopant compound then migrates to the detection zone of the conductive sensor of the diagnostic device to oxidize the conducting polymer and convert the conducting polymer from an insulating form to a conducting form. The resulting increase in conductivity of the conducting polymer is measured, then the conductivity increase is correlated to the concentration of the predetermined analyte in the test sample.

6. 5,202,261, Apr. 13, 1993, Conductive sensors and their use in diagnostic assays; Matthew K. Musho, et al., 204/403; 435/817 [IMAGE AVAILABLE]

US PAT NO: 5,202,261 [IMAGE AVAILABLE] L1: 6 of 7

ABSTRACT:
A conductive sensor and its use in a diagnostic assay are disclosed. The miniaturized conductive sensor, utilizing a conducting polymer, is used in a diagnostic device to determine the presence or concentration of a predetermined analyte in a liquid test sample, wherein the predetermined analyte, like glucose, is assayed by an oxidase interaction. The interaction between the oxidase and a small amount of the predetermined analyte in the test sample generates, either directly or indirectly, a dopant compound in a reaction zone of the conductive sensor. The dopant

compound then migrates to the detection zone of the conductive sensor of the diagnostic device to oxidize the conducting polymer and convert the conducting polymer from an insulating form to a conducting form. The resulting increase in conductivity of the conducting polymer is measured, then the conductivity increase is correlated to the concentration of the predetermined analyte in the test sample.

7. 5,017,566, May 21, 1991, Redox systems for brain-targeted drug delivery; Nicholas S. Bodor, 514/58, 964, 965; 536/103 [IMAGE AVAILABLE]

US PAT NO: 5,017,566 [IMAGE AVAILABLE] L1: 7 of 7

ABSTRACT:
Inclusion complexes of hydroxypropyl, hydroxyethyl, glucosyl, maltosyl and maltotriosyl derivatives of .beta.- and .gamma.-cyclodextrin with the reduced, biooxidizable, blood-brain barrier penetrating, lipoidal forms of dihydropyridine.revreaction.pyridinium salt redox systems for brain-targeted drug delivery provide a means for stabilizing the redox systems, particularly against oxidation. The redox inclusion complexes also provide a means for decreasing initial drug concentrations in the lungs after administration of the systems, leading to decreased toxicity. In selected instances, complexation results in substantially improved water solubility of the redox systems as well.

=> d l2 1-11 cit ab

1. 5,622,694, Apr. 22, 1997, Silicone grafted thermoplastic elastomeric copolymers and hair and skin care compositions containing the same; Peter M. Torgerson, et al., 424/70.122, 70.12; 526/265, 279 [IMAGE AVAILABLE]

US PAT NO: 5,622,694 [IMAGE AVAILABLE] L2: 1 of 11

ABSTRACT:
The present invention relates to water or alcohol soluble or dispersible silicone grafted thermoplastic elastomeric copolymers and to cosmetic and pharmaceutical compositions containing these copolymers. This invention especially relates to copolymers useful for hair styling purposes, and to hair styling compositions containing these copolymers. This invention further relates to copolymers useful for providing cosmetic and pharmaceutical compositions for topical application to the skin. These topical skin care compositions are useful for delivering and/or transdermally transporting active ingredients to or through the skin.

2. 5,620,863, Apr. 15, 1997, Blood glucose strip having reduced side reactions; Michael F. Tomasco, et al., 435/14; 422/55; 435/28; 436/170 [IMAGE AVAILABLE]

US PAT NO: 5,620,863 [IMAGE AVAILABLE] L2: 2 of 11

ABSTRACT:
A reagent strip for measuring glucose concentration in a biological fluid containing red blood cells has reduced interference of hematocrit with the glucose measurement. When a biological fluid contacts the strip, it causes, in a reagent impregnated in the strip, a color change which is a measure of the glucose concentration in the fluid. However, the color change is also affected by the red blood cell concentration (hematocrit), thereby reducing the accuracy of the glucose measurement. The hematocrit effect is reduced by adding to the reagent a component, such as imidazole or imidazole and N-acetylglucosamine, for minimizing side reactions of the glucose, or its reaction products, with the fluid.

3. 5,607,863, Mar. 4, 1997, Barrier-controlled assay device; Howard M. Chandler, 436/518; 422/56, 57, 58, 61, 104; 435/7.92, 7.93, 7.94, 805, 969, 970; 436/165, 170, 514, 810 [IMAGE AVAILABLE]

US PAT NO: 5,607,863 [IMAGE AVAILABLE] L2: 3 of 11

ABSTRACT:
An assay device for detection and/or determination of an analyte in a test sample uses a barrier containing an aperture to control the application of reagents to the device for greater reproducibility of results. In its simplest form, the device comprises: (1) a chromatographic medium having a first end, a second end, and first and second surfaces, and having a specific binding partner for the analyte immobilized thereto in a detection zone; (2) at least one absorber in operable contact with at least one of the first and second ends; and (3) a substantially fluid-impermeable barrier adjacent to the first surface of the chromatographic medium, the barrier having at least one aperture therethrough for application of liquid to the chromatographic medium, the barrier at least partially blocking application of liquid to the chromatographic medium. The device can be adapted for sandwich or competitive assays and can be used to perform amplified assays, such as those using silver amplification or enzyme amplification. Various arrangements of components within the device are possible, and elements such as filters can be accommodated.

4. 5,541,162, Jul. 30, 1996, Glutathione derivatives; Shinji Ohmori, et al., 514/18; 530/331, 332 [IMAGE AVAILABLE]

US PAT NO: 5,541,162 [IMAGE AVAILABLE] L2: 4 of 11

ABSTRACT:
An antiinflammatory, antiallergic or hepatic disorders inhibitory agent containing a compound of the following formula or a pharmaceutically acceptable salt thereof as an active ingredient ##STR1## (wherein n represents 0 or 1; R.sub.1 means hydrogen or an alkyl group; R.sub.2 and R.sub.3 are the same or different and independently mean a hydroxyl group, a lower alkoxy group or an amino group or R.sub.2 and R.sub.3 together form an imino group; provided that R.sub.1 means an alkyl group where n=0 and R.sub.2 and R.sub.3 are the same or different and independently mean a hydroxyl group or a lower alkoxy group).

5. 5,527,524, Jun. 18, 1996, Dense star polymer conjugates; Donald A. Tomalia, et al., 424/1.33, 9.3, 9.4, 9.42, 78.17, 78.18, 78.19, 78.22, 78.23, 78.26, 78.27, 78.34, 78.37, 84, 93.1, 94.1, 130.1, 184.1, 278.1, 401, 405, 409, 417, 452, 484, 486, 487, 501, DIG.16; 514/772.1, 772.3, 772.4, 772.5, 772.6, 772.7; 523/105; 525/417 [IMAGE AVAILABLE]

US PAT NO: 5,527,524 [IMAGE AVAILABLE] L2: 5 of 11

ABSTRACT:
Dense star polymer conjugates which are composed of at least one dendrimer in association with at least one unit of a carried agricultural, pharmaceutical, or other material have been prepared. These conjugates have particularly advantageous properties due to the unique characteristics of the dendrimer.

6. 5,445,971, Aug. 29, 1995, Magnetically assisted binding assays using magnetically labeled binding members; Thomas E. Rohr, 436/526; 209/214; 422/236; 435/287.2; 436/528, 534, 806 [IMAGE AVAILABLE]

US PAT NO: 5,445,971 [IMAGE AVAILABLE] L2: 6 of 11

ABSTRACT:
The present invention provides devices for performing binding assays. Such devices comprise (i) a reaction vessel where unbound and immobilized magnetically-labeled reagent are produced in relation to the amount of said analyte in said test sample; (ii) a separation means for partitioning said immobilized magnetically-labeled reagent and said bound magnetically-labeled reagent; (iii) a magnetic field generator means for the application of a magnetic field to said magnetically-labeled reagent; and (iv) a measurement means to assess the effect of said magnetic field on said magnetically-labeled reagent as a measure of the presence or amount of said analyte in said test sample. The device provided by the instant invention can run, for example, direct indirect, competitive, inhibition and sandwich assay formats.

7. 5,445,970, Aug. 29, 1995, Magnetically assisted binding assays using magnetically labeled binding members; Thomas E. Rohr, 436/526; 209/214; 422/236; 436/528, 534, 806 [IMAGE AVAILABLE]

US PAT NO: 5,445,970 [IMAGE AVAILABLE] L2: 7 of 11

ABSTRACT:
The present invention provides assay methods for performing binding assays, wherein the detectable label is a magnetically responsive material. Direct and indirect, competitive and sandwich assay formats are used to partition the magnetically attractable label between a solid phase and a fluid phase in proportion to the presence or amount of analyte in the test sample. The magnetic responsiveness of the magnetically attractable label in one or both phases results in the exertion of a force upon the label. By determining the extent of the force or influence of the force exerted upon the label, the amount of the analyte in the test sample is determined.

8. 5,439,798, Aug. 8, 1995, Maleimide adduct conjugates of procainamide and NAPA; Gerald F. Sigler, et al., 435/7.7, 188; 436/544, 545, 822; 530/388.9, 389.8, 404; 548/546 [IMAGE AVAILABLE]

US PAT NO: 5,439,798 [IMAGE AVAILABLE] L2: 8 of 11

ABSTRACT:
Novel derivatives of procainamide and N-acetylprocainamide (NAPA) are disclosed having the following formula: ##STR1## wherein: X=hydrogen or acetyl;
R.sub.1 =an alkyl group having 1 to 3 carbon atoms;
m=an integer from 2 to 10;
R.sub.2 =an alkyl, cycloalkyl or aryl group having 2 to 10 carbon atoms;
Z=a poly(amino acid); and
n=1 to p where p=MW of Z/1000.
The derivatives include maleimide conjugates of proteins or poly(amino acids), enzymes, enzyme donor polypeptides and labeling substances. Novel activated hapten intermediates useful in the preparation of the conjugates and methods for synthesis of the hapten intermediates and derivatives are also disclosed.

9. 5,171,563, Dec. 15, 1992, Cleavable linkers for the reduction of non-target organ retention of immunoconjugates; Paul G. Abrams, et al., 424/1.45, 1.53, 1.69, 9.4, 94.63, 94.64, 179.1, 180.1, 181.1, 717, 720; 514/474, 562, 836, 922; 530/391.1, 391.5, 391.9, 402, 807 [IMAGE

AVAILABLE]

US PAT NO: 5,171,563 [IMAGE AVAILABLE] L2: 9 of 11

ABSTRACT:
A process for reducing the non-target organ accumulation of immunoconjugates administered in vivo during therapeutic or diagnostic procedures involves the use of immunoconjugates comprising linkers that are cleavable at the non-target organs. The linkers are cleavable under conditions present, or induced, at one or more non-target organs, which include the kidneys or the liver.

10. 5,066,490, Nov. 19, 1991, Protein crosslinking reagents cleavable within acidified intracellular vesicles; David M. Neville, Jr., et al., 424/179.1, 94.1, 181.1; 435/188; 514/21; 530/345, 391.9, 395, 397, 399, 409, 410; 548/407, 409 [IMAGE AVAILABLE]

US PAT NO: 5,066,490 [IMAGE AVAILABLE] L2: 10 of 11

ABSTRACT:
Crosslinking reagents for amino group-containing compounds are provided, which crosslinkers can be cleaved under mildly acidic conditions. The crosslinkers can be used to crosslink biologically active substances to be delivered to the cells, wherein the crosslinker will be cleaved in the mildly acidic conditions within the cell.

11. 4,737,544, Apr. 12, 1988, Biospecific polymers; G. Howard McCain, et al., 424/443, 409, 422; 427/2.1, 2.3; 525/54.1; 604/5, 6 [IMAGE AVAILABLE]

US PAT NO: 4,737,544 [IMAGE AVAILABLE] L2: 11 of 11

ABSTRACT:
Biocompatible polymers having immobilized biologicals which retain a high specificity for binding pathological effectors, specific groups of pathological effectors or specific body fluid components are disclosed.

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